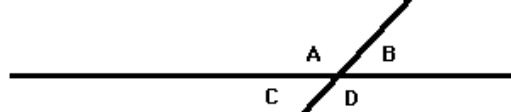


tc core 122: Quiz 2

1. (Patty Wks 3) Given that the horizontal lines in the picture below are parallel, determine if the following are true or false. Briefly justify your answers.

(a) [1] $A \cong D$



(b) [1] $C \cong F$



2. [3] (Wheater §7.4) Let $\triangle ABC \sim \triangle XYZ$, $\overline{AB} = 3x + 1$, $\overline{AC} = 5$, $\overline{XY} = 21x$, and $\overline{XZ} = 30$. Find the value of x .

3. [5] (Lecture 4/11) Write down instructions for folding the diamond shape that you used when forming open and closed sinks.

4. [4] (Wheater §3.2) Fill in each blank with the word sometimes, always, or never. Explain briefly why.

(a) Line a is parallel to line b . Line b is parallel to line c .
Line a is _____ parallel to line c .

(b) Line a is perpendicular to line b . Line b is perpendicular to line c .
Line a is _____ parallel to line c .

5. [2] (Mathematician's Lament) What mathematical "adventure of of the imagination" does Paul Lockhart use as an example to highlight the stark difference between the current school systems approach to math and the approach that he is championing?

6. [4] (Mathematician's Lament) Make at least two arguments to defend or argue against Paul Lockhart's statement that "math is art".